

Docket No. 131982-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Buckley et al.)
Serial No.: 10/648,647) Group Art Unit: 1714
Filed: 08/26/2003)
For: METHODS OF PREPARING) Examiner: Cain, Edward J.
A POLYMERIC MATERIAL)

VIA FACSIMILE: 571-273-8300

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hua Guo declares and says that:

1. I am a co-inventor of the above-referenced U.S. patent application serial number 10/648,647 herein referred to as "the application".
2. My educational background includes a Master of Science degree in Chemical engineering (Polymer focus) from Nanjing University of Chemical Technology, China, in 1986, and a Ph.D. in Chemical engineering (Polymer focus) from the McMaster University, Canada, in 1995.

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3. I have been employed by the General Electric Company since January 1996, where I am currently a Principal Engineer and Global IP Leader.

4. I am familiar with Column 1, lines 34 to 38 and Column 3, lines 31-37 of the patent U.S. 4,373,065 to Prest, Jr. (herein referred to as "Prest") directed generally to optically isotropic blends of polyphenylene ether and polystyrene.

5. At my direction and supervision, I asked Robert Hossan, Steve Driver, Mark Vendon, and Mark Pietrafesa, all of General Electric Company, to perform testing to determine the amount of visible particulate impurities present in polyphenylene ether/polystyrene injection molded disks. Compositions used to prepare the disks are summarized in the Table, below. Each composition contained a blend of 40% polyphenylene ether and 60% polystyrene (wt/wt).

6. Pellets of the Example 1 composition were prepared according to the procedure of Example 1 of the application at paragraphs [0077] to [0086]. Pellets of a Comparative Example composition according to Prest were prepared by extruding commercially available polyphenylene ether and polystyrene through a twin-screw extruder. Prior to the blending of the Comparative Example material, the extruder was purged with about 1000 lbs of a 50/50 wt/wt blend of polyphenylene ether and polystyrene to clean the line.

7. Pellets of Example 1 and the Comparative Example were separately injection molded into Dynatup disks, 4 inches in diameter using the same equipment and conditions. A single disk each from Example 1 and the Comparative Example were chosen at random and two 10-gram samples from each were dissolved in chloroform. The dissolved samples were tested for visible particulate impurities according to the procedure provided in paragraphs [0014] and [0089] of the application. The results are provided in the Table below. There is accordingly a substantial difference between the quantity of visible particulates present in the material of Example 1 and the Comparative Example according to Prest.

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	Example 1	Comparative Example (Prest)
Polyphenylene ether	40 weight% 2,6-dimethylphenylene oxide, 0.33 IV PPE powder available from GE Plastics	40 weight% 2,6-dimethylphenylene oxide commercially available from GE Plastics as PPO630, 0.33 IV
Polystyrene	60 weight% polystyrene, L3050, Mw 214,000 and Mn of 71,600 commercially available from Chevron Phillips	60 weight% polystyrene L3050, Mw 214,000 and Mn of 71,600 commercially available from Chevron Phillips
Process conditions to form the blend	Processed according to Example 1 of 10/648,647	Blended in an extruder
Visible specks in dissolved samples	Sample 1: 4 Sample 2: 6	Sample 1: >50 Sample 2: >50

8. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.

Date: 09-01-2006


Hua Guo